

# The baby business booms: Economic geographies of assisted reproduction

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## Abstract

This paper explores how reproductive life has changed through the development, transnational spread, and commercialization of assisted reproductive technologies (in vitro fertilization, gamete donation, and surrogacy). (Economic) geography has been slow to take up the vibrant debates in anthropology, sociology, gender studies, and other neighboring disciplines on assisted reproductive technologies and their effects on society, kinship, and reproduction. In this paper, I argue that an analysis of the fast-growing transnational market of assisted reproduction has much to gain from economic geographies with their interest in the making of markets across borders and feminist economic geographers' engagement with how new forms of gendered and racialized divisions of labor intersect with particular economic, cultural, political, and social contexts. I discuss literature on assisted reproductive technologies and their transnational economies against the background of these two issues—the transnational making of fertility markets and the global division of reproductive labor along axes of gender, race, class, and nationality. The conclusion points out the need for articulating *geographies of assisted reproduction* that integrate a geographic perspective into the study of assisted reproductive technologies and *reproductive economic geographies* that push the boundaries of economic geography towards the economies of (assisted) reproduction.

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**KEYWORDS**

assisted reproductive technologies, commodification of bodies, feminist and postcolonial economic geographies, geographies of marketization, intimate labor, surrogacy, transnational reproduction

## 1 | INTRO: HOW MUCH IS A BABY WORTH?

For 50,000 US\$, you can either go through four cycles of in vitro fertilization (IVF) in a U.S.-American fertility clinic or 10 IVF cycles in an Ukrainian clinic catering to reproductive tourists, buy yourself the oocytes of an Ivy-League egg donor, or travel to Mexico for a surrogate baby gestated by a Mexican surrogate laborer. What this short glance of the global fertility market shows is that economic *geographies* underwrite the global fertility market. The consumption of the same reproductive technologies and services has not only a different cost in different places. Some technologies and services are only legal at certain places; other places restrict the access to certain reproductive technologies to particular populations, denying, for example, single or homosexual people access to IVF treatment, oocyte donation, or surrogacy. Access to assisted reproductive technologies is highly unequal both within and between nation states. In general, wealthier, urban, heterosexual, married, and White(r) people living in the Global North have better access to assisted reproductive technologies than poorer, rural, homo- and transsexual, single, and non-White people in the Global South and the Global East and ethnic minorities in the Global North (Elster, 2005; Jain, 2006; Nachtigall, 2006; Shanley & Asch, 2009). This engenders all kinds of mobilities in which people travel abroad to seek treatment they have no access to or cannot afford in their home country.

While transnational flows and spatial interconnections characterize this fast-growing market, place continues to matter. Place matters as uneven geographies saturate the global fertility market. Fertility specialists in the Global North have higher wages than their colleagues in the Global South and Global East. Postcolonial geographies of beauty shape processes of valuation and price-making in this market. Young, White, Western women with higher education receive up to 100 times more for their oocytes than egg sellers in India, Mexico, Ukraine, or Georgie (Schurr, 2017). Commercial surrogacy—where you contract and pay a woman to gestate your baby—is only legal in a few countries, many of them belonging to the Global East (Müller, 2019) or Global South, where surrogate mothers earn only a fraction of what a Californian surrogate would earn. Just as other kinds of services have been outsourced to low-wage countries to reduce costs within a global commodity chain, reproductive labor is outsourced in global fertility chains to women living in deprived socioeconomic conditions in the Global South, Global East, and Global North to reduce the price for a baby conceived with the help of a third party. In short, postcolonial, neoliberal, and legal geographies shape consumption and labor in the global fertility market.

While in many societies a child is often perceived as “priceless” (Zelizer, 1985), the rise of the global fertility market since the 1990s has contributed to the increasing commodification of reproductive capacities, bodily tissues, body parts, and ultimately also babies. Parallel to this process, fierce academic and public debates have emerged about whether this process of commodification is morally and ethically problematic or just another variation of the increasing marketization of everyday life and the body (Dickenson, 2007; Nussbaum, 1998; Parry, 2008; Phillips, 2013; Radin, 2001). Given the long history of wet nursing, adoption, and child trafficking, the baby market is nothing new (Rotabi & Bromfield, 2012; Zelizer, 1985). But as economic geographer Bronwyn Parry (2012, p. 215) has argued, “we are witnessing a profound extensification and intensification of trade in human bodies, bodily parts and bodily resources”—including the bodies of babies. Technological development, the rise of cheap air travel, new communication and information technologies, and the accumulation of “biocapital” (Rajan, 2006) have sped up the trade of bodies, body parts, and babies across borders.

Much has been written on how the market frontier has also entered those spheres of our life previously more shielded from the market, such as reproduction, love, and sex in so-called intimate markets (Boris & Parreñas,

2010; Hochschild, 2003; Wilson, 2004; Zelizer, 2005). Hochschild (2012, p. 11) diagnoses “the commodification of intimate life” as “the great unnoticed trend of our time.” For sure, conception, pregnancy, and birth are realms of intimate life that were long thought as being outside of the market before they became increasingly medicalized in the diverse spaces of health care (Fannin, 2003, 2012; Oakley, 1984) and commercialized through the development of new medical and reproductive technologies often consumed in private clinics (Spar, 2006).

The reasons for undergoing IVF treatment, using genetic diagnostic technologies, purchasing gametes, or contracting a surrogate laborer in the global fertility market are diverse. They range from health issues affecting one's abilities to conceive and gestate (Becker, 2000; Thompson, 2005), to infertility issues in response to delayed childbearing (Bühler, 2014; Everywoman, 2013) and social infertility of singles and homosexuals (Nebeling Petersen, 2016; Nebeling Petersen, Kroløkke, & Myong, 2017; Smietana, 2017). Since the birth of the first IVF baby, Louise Brown, in the UK in 1978, reproductive technologies have spread across the globe with infertility treatment now being available in nearly every country of the world (Franklin & Inhorn, 2016; Inhorn & Patrizio, 2015; Rozée & Unisa, 2016). By now, reproductive technologies have become ubiquitous, mundane, and “normal” (Thompson, 2005). In Europe alone, more than half a million of IVF cycles are performed per year (Okhovati, Zare, Zare, Bazrafshan, & Bazrafshan, 2015).

As most of the fertility treatments worldwide take place in private clinics, it has become a booming business with ever more people accessing assisted reproductive technologies of all sorts from IVF, to IVF with donated gametes, genetic testing and screening, and surrogacy (Almeling, 2011; Bratcher Goodwin, 2010; Spar, 2006). It is estimated that the global market of assisted reproductive technology has generated revenues of 22.3 billion US\$ in 2015 (Global market insight, 2016) with fertility drugs being a fast-expanding pharmaceutical field (Vertommen, 2017). In short, the baby business booms and has gone global over the last decades.

Given the transnationality of fertility markets and the importance of space, scale, mobility, and borders in this market, it seems rather surprising that (economic) geographers have been rather slow to engage with the economies of assisted reproductive technologies. Anthropologists, sociologists, and scholars working at the intersections of gender studies, queer studies, and bioethics have put key concepts of geography such as transnationalism (Banerjee, 2014; DasGupta & DasDasgupta, 2014; Deomampo, 2016b; Kroløkke & Pant, 2012; Nahman, 2010), mobility (Bergmann, 2011; Deomampo, 2013; Gunnarsson Payne, 2015; Kroløkke, 2015; Nahman, 2011; Whittaker & Speier, 2010), borders (Deomampo, 2015), distance (Hudson, 2017; Lustenberger, 2016), and the global intimate (Lustenberger, 2016) at the center of their research, often without explicitly engaging with geographic scholarship and the theoretical nuances discussed in geographic debates around these concepts. At the same time, there have been few explicit interventions from geographers in the wider field of social studies of (assisted) reproduction (for publications in geography, see Greenhough, Parry, Dyck, & Brown, 2015; Kent, Fannin, & Dowling, forthcoming; Lewis, 2017, 2018; Parry, 2008, 2015a, 2015b; Schurr, 2017; Schurr & Abdo, 2016; Schurr & Fredrich, 2015; Schurr & Miltz, 2018).

In this paper, I discuss assisted reproductive technologies' geographies as well as how geographic debates can “assist” neighboring disciplines to understand the increasingly transnational marketization of assisted reproductive technologies. In the following, I review literature addressing the economies of assisted reproduction, showing first how bordering processes matter in the making of the global fertility market. Second, I bring into conversation research on women's reproductive labor in this market with feminist economic geographers' engagement with gendered and racialized divisions of labor. The conclusion points out the need for articulating an agenda for geographies of assisted reproduction and pushing the boundaries of economic geographies towards including the spaces of (assisted) reproduction.

## 2 | (DE)BORDERING REPRODUCTION: MAKING FERTILE MARKETS FOR INFERTILITY

In the introduction to the special issue “IVF: Global histories,” Franklin and Inhorn (2016, p. 2) assert that “the globalization of IVF remains relatively understudied.” They identify the fast changes in this industry and that assisted

reproductive technologies are primarily policed by nation-states as the main reasons why it is so challenging to grapple with reproductive technologies as a global form. Despite these difficulties, scholars have started to engage with "the many diverse elements operating on a global scale that make IVF and its associated mobilities a distinct form of global travel in the twenty-first century" (Inhorn, 2016, p. 22). Knecht, Klotz, and Beck (2012, p. 13) propose to conceptualize reproductive technologies as "a transnational or even global assemblage that constantly re-defines and re-produces reproductive technologies and its contexts, both locally and globally." Such an assemblage perspective allows following the circulation—the de- and reterritorialization—of different human and non-human actors in transnational fertility markets (Beck, 2012; Inhorn, 2015; Kroløkke, 2014; Müller & Schurr, 2016). So far, research has focused on the circulation of technoscience (Parry, 2012; Schurr & Verne, 2017), consumers, laborers, fertility experts, body parts involving gametes, frozen embryos, and other biological substances (Bergmann, 2014; Kroløkke, 2014; Parry, Greenhough, Brown, & Dyck, 2015), and systems of administration and business models (Müller & Schurr, 2016). The circulations of each of these human and non-human actors thereby follow very different logics and practices and embody different experiences of mobility and immobility (Müller, 2015), resulting in "multiple reproductive (im-)mobilities" (Schurr, forthcoming).

Beyond analyzing the multiple flows of consumers and laborers, research has started to look at the mobilities of the market itself. The global surrogacy market is an exceptionally well-suited case study to investigate the flexibility, ephemerality, and fluidity of one particular reproductive market and to question the role translocal networks, territoriality, and borders play in the making of this market. The more recent history of the global surrogacy market is characterized by fast changes: In the last 5 years, the major global surrogacy hotspots such as India (Rudrappa, 2016), Thailand (Whittaker, 2016), Nepal (Pink News, 2015), Mexico (Schurr & Perler, 2015), and Cambodia (Bangkok Post, 2016) have all faced comprehensive legislative changes to contract a surrogate, resulting in either a total ban of commercial surrogacy (Thailand, Nepal, and Cambodia) or severe restrictions limiting the legal options to married and heterosexual national citizens (India and Mexico). However, due to the extensive transnational fertility tourism networks, the respective surrogacy industries were quick to undergo a "structural/spatial re-adjustment" (Mitra, 2015, p. 3) by moving their services, and in some cases even their surrogate mothers and IVF labs, to other destinations.

Assemblage approaches and actor-network theory are well equipped to study how globally operating surrogacy agencies maneuver through and even consider these legal changes as a corner stone of their business strategy and profit-making (Müller & Schurr, 2016). Always already looking for the next business opportunity in face of these fast legislative changes, surrogacy agencies operate at a distance trying to enroll different agents—ranging from IVF clinics to intermediaries who recruit reproductive laborer, lawyers, medical tourism agencies, and so forth—in their networks and to hold these relations stable to guarantee successful surrogacy journeys to their clients. My research reveals that even though the surrogacy agencies have a rather immutable, standardized, and uniform business system in which they circulate the very same templates, contracts, and manuals to their branches in different regions of the world, they are all challenged to adapt their services to these contexts. Local agents and intermediaries play a key role in the medical tourism industry in general (Kaspar & Reddy, 2017; Ormond & Sothorn, 2012; Parry et al., 2015) and in facilitating the reterritorialization of surrogacy agencies in new destinations in particular (Parry, 2015b). The shifts and expansion of surrogacy markets takes place within a "networked topography" (Beck, 2012, p. 362) which is not necessarily transnational but rather connects diverse localities and its actors to pursue their commercial interests.

Moreover, even though surrogacy agencies suggest in their promotion material that global surrogacy is an effortless endeavor in a world where borders have dissolved, numerous challenges emerge when it comes to the capacities of different human and non-human agents to cross borders (Schurr, forthcoming). Gametes and embryos can travel across borders with a special permit and the necessary cryopreservation technology to keep embryos and gametes in good shape in their travels. The resulting baby, however, can often only leave the country when the passport is issued or juridical processes around the legal status of the *sans papier* baby are settled. The way mobilities are stratified becomes evident when unexpected events happen that shake the usual routines of surrogate markets. For example, when the earthquake in Nepal hit the surrogacy industry that had just escaped from the legal restrictions in India to Nepal (Liebermann, 2015), "Israeli babies" were flown out of the country, while Indian

surrogate workers<sup>1</sup> had to face immense troubles to cross the border by bus in their return travels to India (Mitra, 2015). Whereas borders seem to disappear and vanish for certain actors in the global surrogacy market, they remain impermeable and powerful for others. In short, "inequalities, disjunctures, and obstacles inhibit and even prevent flows of people, technology, and other forms across uneven global terrains" (Inhorn, 2016, p. 24). The gendered, racialized, nationalized, and so forth capacities to move across national borders along with uneven global economic structures result in "stratified forms of reproduction" (Colen, 1995) that characterize the political economy of fertility (Banerjee, 2014; Gerrits, 2018; Ikemoto, 2015; Vertommen, 2016a, 2016b; Weis, 2017).

The story about the surrogacy industry in Nepal seems to re-write postcolonial histories of inequality between the Global North and Global South in a similar way as the global organ market, which strategically exploits global inequalities (Scheper-Hughes, 2000; Scheper-Hughes & Wacquant, 2002). Bronwyn Parry (2015b), however, cautions against reproducing too simplistic (post-)colonial assumptions in our analysis of the global surrogacy market. Talking about the legislative changes in India, she highlights that the usual spotlight on the Global North–South inequalities consisting of Western intended parents traveling to India to outsource their reproductive labor loses sight of the agency and hegemony of the Indian fertility industry. By now, "it is India's leading IVF specialists who have constructed the most extensive networks of fertility clinics in the developing world building their own 'empires' of commercialized reproductive care in countries from Africa to Thailand and the Gulf states" (Parry, 2015b, pp. 36–37). In sum, the geographies of difference shaping the global fertility market are often more complex than suggested by broad-brushed analyze that portray the surrogacy market in a (post-)colonial North–South logic.

Economic geography is well equipped to face the challenge to grapple with the everyday messiness of this market, the way it is constructed along intersecting lines of difference and shaped by multiple processes of bordering and debordering. In particular, two (overlapping) approaches bear great potential for studying the making, expansion, decline, and shifts of surrogacy and fertility markets: geographies of marketization and critical commodity chain analysis. Geographies of marketization study processes of market-making in their transnational choreographies (Berndt & Boeckler, 2012; Boeckler & Berndt, 2013; Çalışkan & Callon, 2010). They are interested in understanding how the transnational arrangements of heterogeneous elements (ranging in the case of fertility markets from lab equipment to medical knowledge, reproductive consumers and laborers, reproductive bodies and body parts, business models, regulations and laws, etc.) organize the circulation of goods across borders. Berndt and Boeckler (2011, 2012) focus in particular on the role borders play in processes of market-making, arguing that "the global movements of capital, goods, people and ideas always involve an ambivalent double play of debordering *and* bordering processes" (Berndt, 2013, p. 2651). They argue that borders themselves are moving around, getting blurred, and turning into "semi-permeable membranes" (Mol & Law, 2005, p. 637) in consequence of the increasing translocal flows of goods, people, and money (Berndt & Boeckler, 2012). While borders are generally understood rather as a static phenomenon and reduced to the physical demarcation lines of nations in the literature on transnational reproduction, such a performative understanding of borders as being in the process of making, unmaking, and remaking has much to offer to scrutinize the role borders play in the fast-changing fertility market. The surrogacy market is for sure a good example of how "ambivalent border regimes are a necessary condition for the construction of [this particular] global market" (Berndt, 2013, p. 2651). Different national legislations along with price differences between surrogacy packages in different countries that are kept in place due to national border regimes engender transnational mobilities of consumers and the global scope of this market in the first place. At the same time, debordering processes are crucial to facilitate the smooth flow of transnational baby journeys. Borders are shifted across space when transnationally operating surrogacy agencies offer their services in other countries, evading taxes and state control of their medical services in the destination country. This ambivalent play of bordering and debordering is veiled by the work of surrogacy agencies, lawyers, and the consumers themselves.

Critical commodity chain analysis (Bair, Berndt, Boeckler, & Werner, 2013; Bair & Werner, 2011b; Castree, 2004; Werner, 2011, 2016)—which was integrated into economic geography by feminist and other critical scholars—complements such a marketization perspective by focusing on how processes of inclusion and exclusion shape the making of transnational markets. This approach studies "processes by which regions and actors become disconnected

or expelled from commodity chains that may be incorporating new regions and actors elsewhere" (Bair & Werner, 2011a, p. 989). Looking in particular into how these processes of expulsion affect laborers whose identity is shaped by interlocking categories of social difference, critical commodity chain analysis is a helpful approach to understand how the shifts in global fertility markets affect differently racialized, gendered, nationalized, and classed bodies to different extents. What possibilities do surrogate workers have to continue their reproductive labor when bans are implemented? What strategies do they employ to offer their labor in neighboring countries and what capacities do they have to cross borders? Who benefits and loses economic opportunities if surrogacy markets shift from one location to another? And who carries the medical, legal, and psychological risks when surrogacy services are continued to be offered in legal gray zones? These are questions that such a critical commodity chain approach is apt to analyze and answer.<sup>2</sup>

### 3 | CONTEXT MATTERS! PUTTING REPRODUCTIVE LABOR IN PLACE

Discussions about whether to conceptualize surrogate mothers' and oocyte donors' reproductive service as an altruistic act or a form of labor are currently not only at the heart of scholarly debates (Almeling, 2011; Franklin, 1997; Franklin & Ragoné, 1998; Nahman, 2013; Parry, 2015b; Waldby, 2015; Waldby, Kerridge, Boulos, & Carroll, 2013) but also inform policy making (Rudrappa, 2016; Schurr & Perler, 2015). While countries such as the UK allow only altruistic surrogacy and prohibit any form of financial compensation, in most transnational surrogacy markets, financial compensation plays a key role. In fact, commercialization and altruism intermingle in complex ways in this "affective market" (Schurr & Militz, 2018) according to the context in which the surrogacy arrangement takes place. In the context of the United States, empirical research has shown that financial and altruist motivations to donate oocytes or gestate a baby are co-constitutive (Jacobson, 2016; Ragoné, 1999; Smietana, 2017). Unlike U.S. surrogates, who can be rejected from surrogacy programs if they are not financially secure, Teman (2010, p. 23) shows in her study that surrogates in Israel state unapologetically that money is their primary goal in pursuing surrogacy in order to supplement their income to pay off huge debts and provide for their children's basic needs. Nevertheless, they often transform their contractual relationship into a gift relationship during the surrogacy process. Surrogate workers in Mexico have deeply incorporated the industry's rhetoric of altruism and gift while openly admitting that economic needs are the main driver to engage in surrogacy (Schurr & Militz, 2018). Siegl (2018) by contrast, shows that Russian surrogates consider any affective involvement into surrogacy process as dangerous and hence prefer to "do it business style." Pande (2009, p. 160, 2014, p. 91) states that metaphors of gift giving are absent from the narratives of Indian surrogates as the surrogates emphasize surrogacy as "majboori" (something we have to do to survive). Parry (2015b), however, points out that affective ties and exchanges of gifts of food, medication, and money characterize the relationship between the Indian surrogates, the recruiting agent who is usually known to the women, and the hospital staff. She concludes "this gifting alters the intrinsic dynamics of this economy ultimately rendering contracts largely moot for surrogates and donors" (Parry, 2015b, p. 36). Integrating anthropological debates around the need to dissolve the gift/commodity binary (Appadurai, 1986; Gunnorson & Svenaeus, 2012; Mauss, 1968; Pande, 2011; Scheper-Hughes, 2007; Shaw, 2008; Titmuss, 1997 [1970]; Waldby et al., 2013) into geography, Parry's (2008) work shows how reproductive bodies and body parts move in and out of the commodity status during the surrogacy process. Framing surrogacy either as an altruistic act or as a new form of labor has important implications not just for the way it is perceived socially but also with regard to the women's rights to reclaim their wage (rather than a non-enforceable compensation) as well as their capacities to fight for their labor rights and working conditions including health and social securities (Cooper & Waldby, 2014; Lewis, 2015, 2017; Pande, 2017; Rudrappa, 2016).

Given the increasing outsourcing of "clinical labor" (Cooper & Waldby, 2014) to countries in the Global South and Global East, discussions have emerged around the exploitative effects of this new baby market on the bodies of women in deprived economic situations in general and women of color in particular who offer their oocytes or



gestational capacities in this market (Cooper & Waldby, 2014; Pfeffer, 2011). Ethnographic research has painted a more differentiated picture: Analyzing the racial breakdown of donor pools with regard to the total population of the United States, Daniels and Heidt-Forsyth (2012) show that White Anglo-American donors are clearly overrepresented in U.S. gamete banks in the same way that access to assisted reproductive technologies is still thoroughly racialized and classed (Elster, 2005). They conclude from their analysis that “egg donors continue to reflect the tall and slender stature of class- and race-based standards of Western, idealized feminine beauty” (Daniels & Heidt-Forsyth, 2012, p. 731). Research looking at the racialization of oocyte donors in the context of transnational surrogacy arrangements has come to similar findings (Deomampo, 2016a; Whittaker & Speier, 2010). Western consumers' racial preferences for a White baby influence demand in the global fertility market, “making race a commodity to be selected, acquired and purchased” (Deomampo, 2016b, p. 97). As my own research in Mexico shows, the higher market value of White(r) sex cells in Mexico's egg donation programs needs to be considered as a function of postcolonial desires for Whiteness and imaginaries of race (Schurr, 2017). Due to the increased demand for White donors, light-skinned oocyte donors come and often travel from Eastern Europe (Gunnarsson Payne, 2015; Nahman, 2013; Speier, 2016; Vlasenko, 2015), South Africa (Pande, forthcoming), Spain (Bergmann, 2011; Kroløkke, 2014), and the United States (Martin, 2015) to the destination countries of transnational surrogacy and fertility tourism.

In contrast, sperm is imported mostly from the United States, facing serious competition only from donors from Scandinavia (Kroløkke, 2009; Mohr, 2016). Parry (2015a) has investigated how devices of qualification and singularization have turned U.S. sperm into “America's hottest export” (Jarvis, 2013). She shows how U.S. sperm banks have succeeded to “singularize” their donors by offering extended donor profiles, which package the “pedigree” of each donor—of which skin color is one crucial aspect—in a detailed fashion. Contrary to the assumption that may result from this short overview about the postcolonial desirability of White donors, Almeling (2011, p. 69) reveals that in the United States, Asian American and African American donors are often more highly valued than White donors—resulting in higher compensation rates—as “women of color are perceived as scarce which contributes to their increased value.” The latter is an example of the importance of contextualized work to reveal the complex geographies of fertility markets that may—but sometimes also may not—follow the racialized logics of labor markets in particular places.

The racialized geographies of clinical labor are also more complex than often suggested by media when it comes to the gestational surrogates. Jacobson's (2016) recent studies on surrogacy in the United States have shown, for example, that despite early warnings that surrogacy could result in the exploitation of women of color (Corea, 1985), this appears not to be the case in the United States, as surrogacy is “largely the terrain of white women” (Jacobson, 2016, p. 48). Twenty-eight out of the 31 surrogate mothers in Jacobson's sample identified themselves as non-Hispanic Caucasian and none lived below the federal poverty line. Kessler (2009, p. 169) has argued that there is a “non-coincidental geography to surrogacy” in the United States given the overlap between American states where surrogacy is legal or regulated, and those with large numbers of military bases. According to her, fertility clinics and surrogate agencies in Texas and California report “that military spouses represent 50 percent of gestational surrogate carriers” (Kessler, 2009, p. 168). Given the limited economic opportunities in many of the places where military bases are located, the 9-months of labor of a surrogacy process presents an attractive employment option for the military wives who are frequently relocated. As Kessler's work shows, there is a spatial story to the U.S. surrogacy market, and the market's geography can only be understood within the particular social and cultural context of a highly militarized nation.

In the last decade, mostly non-White women have catered to the international and national clients consuming in South Asia's surrogacy hotspots in India, Nepal, Thailand, Cambodia, and Laos. Since the increasing regulation and closure of many of the South Asian hotspots after 2015, however, it is mainly White Caucasian women in Ukraine, Georgia, and Russia who carry the global babies to term (Siegl, 2015, 2018; Weis, 2017). Experts estimate that demand for surrogacy alone in Ukraine has increased by 1,000% in the last 2 years (Ponniah, 2018). My own research in Ukraine has revealed that many women are drawn into surrogacy as a result of the rapid fall in living standards in consequence of the deep recession resulting from the ongoing conflict in Eastern Ukraine with Russia.

This last example highlights once more that there is a particular geography to the global surrogacy market in which surrogacy hotspots do not emerge randomly but as a result of wider geopolitical constellations. Bronwyn Parry (2015b, p. 37) makes a case in point for the importance of geography in these debates. She argues that any moral assessment of the exploitative or empowering character of reproductive labor can only be made by studying “the complex lived experiences of clinical labor in situ.” Women’s reproductive labor in the fertility industry has to be understood within the particular cultural, legal, political, and economic contexts in which their “reproductive biographies” (Perler, 2015) are embedded.

In my view, geography has much to offer to the often rather abstract and apparently universal (feminist) debates around reproductive labor. Feminist economic geographer’s work on labor—ranging from paid labor to care work and social reproduction (Katz, 2001; McDowell, 2009; Meehan & Strauss, 2015; Pratt, 2004; Strauss, 2012; Wright, 2006)—can serve as an example for such a contextualized analysis which focuses on the ways cultural, political, social, economic, and spatial components intersect with regard to gendered forms of productive and reproductive labor. It is geographers’ attempt to pay close attention to the intersectional geographies of labor markets that is helpful for developing a more situated and contextualized analysis of the fertility market. Doreen Massey (1994) and Linda McDowell (2008, 2009, 2015), for example, explore in their work how intersecting categories of difference shape the division of labor in different economic sectors in the UK. Looking at the disposability of female workers in Mexico’s maquiladora industry, Melissa Wright (2006) has shown how the subjectivities of workers are shaped along the axes of gender, sexuality, class, race, and nationality. Geraldine Pratt’s (2004, 2012) and Pratt, Johnston, and Banta’s (2017) research on the spatial interconnections of care labor migration between Canada and the Philippines can be considered groundbreaking in showing the interdependencies between particular social and cultural contexts, globalizing forces, categories of difference, and conditions of (intimate) labor. This body of work can help to understand how place comes to matter in the postcolonial and neoliberal geographies shaping consumption and labor in the global fertility industry.

#### 4 | MAKING GEOGRAPHY MATTER IN SOCIAL STUDIES OF ASSISTED REPRODUCTION—MAKING (ASSISTED) REPRODUCTION A MATTER OF ECONOMIC GEOGRAPHY

“By this point it should be clear that reprotravel, and the larger world of IVF medicine in which it is embedded, constitutes a global form. [...] IVF and its associated movements constitute an example par excellence of globalization” (Inhorn, 2015, p. 20).

Most scholars of social studies of assisted reproduction would probably agree with Inhorn’s finding that assisted reproductive technologies and their respective markets are deeply entangled with processes of globalization. Further, geographers around the world probably consider globalization as a topic right at the heart of their discipline. Geography seems to be the expert discipline when it comes to globalization. Nevertheless, there is a mismatch when it comes to geographers’ engagement with one of the “example[s] par excellence of globalization,” assisted reproductive technologies, and social studies of reproduction’s ignorance of theoretical debates in geography around globalization, space, place, scale, and borders. It is only quite recently that a handful of geographers have started to investigate the geographies of assisted reproduction. In this paper, I have already highlighted some of their work and pinpointed how different approaches (such as geographies of marketization, critical commodity chain analysis, and feminist economic geography) can contribute to studying the globalization of assisted reproductive technologies and their markets. To conclude, I would like to point out the need for articulating an agenda for *geographies of assisted reproduction*—integrating a geographic perspective into the study of assisted reproductive technologies—and developing *reproductive economic geographies* which expand the borders of economic geography towards questions of (assisted) reproduction.

*Geographies of assisted reproduction* bring theoretical debates from within the discipline to the interdisciplinary study of assisted reproduction. The paper has shown how geographic debates around the performativity of borders,



forms of spatial in-/exclusion in global commodity chains, or intersectional approaches to the spatialized division of labor can contribute to provide a more nuanced understanding of the global fertility market. Beyond these concepts, attempts to re-theorize scale (Jones, Woodward, & Marston, 2007; Marston, 2000) and the concept of the global intimate (Pratt & Rosner, 2012) can, for example, interrogate the often hierarchical understanding of scale in work in global fertility markets, in which the local life worlds of surrogate mothers are often presented in opposition to global market forces. Rethinking scale not in a binary local/global fashion but as the coming together of the global and intimate, we are able to explore how “the global complicates and compromises intimacy in productive ways by opening it to histories of imperialism, national formation, global economic development, systematic humiliation and deprivation, and gender and sexual inequality” (Pratt & Rosner, 2006, p. 22). Incorporating such a non-hierarchical thinking of scale into the field of social studies of assisted reproduction helps to disentangle how the globalization of assisted reproductive technologies and their national frameworks affect the intimate bodies and lives of people in different ways and intensities.

While distance and proximity are still often portrayed in Euclidian terms in scholarship looking at transnational reproduction, a relational understanding of space serves to rethink the very spatiality of fertility markets. From such a relational understanding of space, spatial distance is not shaped by the number of kilometers between, for example, intended parents and their surrogate worker but as the product of the interrelations between intended parents and surrogates. These interrelations depend on the use of communication technology to overcome physical distance, the emotional intensity of the interactions, the discursive framing of their relationship (as transactional, friendship, kinship, etc.), and the material conditions of their multiple encounters. For Massey (2005), space is always under construction. Such an understanding of space speaks to the fluidity and ephemerality of surrogacy markets. Considering the spatiality of fertility markets as a product of interrelations, relations embedded in material practices, opens up the possibility to see the multiplicity and simultaneity of “stories-so-far” (Massey, 2005, p. 9) that constitute the very intimate spaces of the global fertility market. Recent theoretical debates on the disruption of binary understandings of scale or relational approaches to space are just two out of many examples how geographic theory production can “fertilize” the social study of assisted reproductive technologies. In this paper, I have highlighted the importance of ethnographic work in the different localities of the global fertility market. It is only through this ethnographic work in situ that research can recognize the multiplicity and heterogeneity of fertility markets. For me, researching the multiple mobilities and spatial experiences of assisted reproduction is a feminist and postcolonial endeavor, as it allows to counter universal, Western accounts that still dominate media and policy debates.

Last but not least, this paper has called for the need to make (global) fertility markets an object of inquiry for economic geography, to develop *reproductive economic geographies*. Feminist economic geographers have long fought for expanding economic geography's focus on paid productive labor towards the unpaid reproductive labor in the private spaces of home (Nagar, Lawson, McDowell, & Hanson, 2002; Oberhauser, 2000; Pratt, 2004). The global market for fertility interrogates such a binary between productive and reproductive, paid and unpaid labor when surrogate mothers consider themselves workers in a new bioeconomy but simultaneously perceive their labor as an act of love resulting in transnational kin- and friendship relations (Lewis, 2018). The commercialization of (assisted) reproduction poses a whole set of new questions about the global gendered division of labor, the worth of biological reproduction, and the formation of families beyond the heteronormative ideal of a (White) Western nuclear family. It is time that economic geographers open the sub-disciplinary borders to embrace these questions emerging from the brave new world of assisted reproduction.

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## ENDNOTES

- <sup>1</sup> Since these women do not officially immigrate to Nepal due to the free border crossover permit for Indian citizens, neither the Indian embassy nor the Nepalese government record their travels (Mitra, 2015).
- <sup>2</sup> The concept of the "global fertility chain" will be taken up in a workshop organized by Sigrid Vertommen and Michal Nahman in London in March 2019, and it is to be seen to what extent geographic scholarship on critical commodity chain analysis will be considered (as helpful) to rethink key concepts of transnational reproduction such as borders, transnational flows, and uneven geographies.

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